

Background:

- Beginning in April 2014, EPA R7 established an air monitoring/sampling (monitoring) network outside the perimeter of the West Lake Landfill Site (WLLS) in order to collect data that are representative of outdoor air conditions surrounding the Site to:
 - (1) Evaluate pre-construction concentrations of chemical and radiological parameters of potential concern in outdoor air, and
 - (2) Optimize the sampling and monitoring plan for off-site air monitoring to occur during construction of the isolation barrier.
- Daily air monitoring activities began at this network in April 2014, with some monitors not fully functional until June 2014. Five stations were set up in/around the Bridgeton area to ensure broad coverage around the perimeter of the WLLS and nearby residential populations. (See attached table and map for more details regarding the capability and location of the five EPA off-site monitors.)
- The results of the preconstruction monitoring will be used for comparison with data that may be collected during potential construction of an isolation barrier in order to determine if there is any impact on the air quality of the community surrounding the landfill site during that construction that requires an on-site response or modification of construction activities.
- Since April 2013, MDNR has operated an air monitoring network near the site fence line to measure emissions from the Bridgeton landfill. These data are compared to health-based criteria by MDHSS and the results of that comparison are released to the public. (See attached table and map for more details regarding MDNR's on-site monitors.)
- Republic is expected to begin operation of an air monitoring network consisting of thirteen on-site locations. Six monitoring sites will be located immediately adjacent to OU-1 Areas 1 and 2 and one site located at the southern site perimeter. (See attached table and map for more details regarding Republic's on-site monitors.)

Considerations:

- CNSL will assist with revisions - the removal program is performing this monitoring as assessment work however given the results we have so far we cant continue to do this indefinitely - have existing pre construction order that requires the prp to install air monitoring network and they have agreed to pay our oversight costs -
- the current air monitoring/sampling activities are being conducted under the presumption that there will be a Removal Action to install an isolation barrier between the WLLS and the Bridgeton Landfill. To conduct any actions under Removal Authorities of CERCLA and the NCP, there must be an Action Memorandum documenting a decision that the Removal criteria in the NCP are met and that there is an on-going release or an imminent and

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substantial threat of a release that requires an emergency or time-critical Removal Action. That has not happened yet. Absent that authority, Superfund is collecting “assessment” information under Removal assessment authority to determine baseline levels of contaminants of concern near the site before construction begins. This information would then be used during construction to determine if the construction activities are causing a release of CERCLA hazardous substances, pollutants or contaminants from the site. Absent an ongoing release from the site, of which there is no evidence at this time, Superfund does not have the authority to continue sampling indefinitely. Neither does CERCLA authorize the investigation of releases from mobile or active industrial sources or permitted sources. Input here statements about authorities under which the original network system was put in place (removal action) and that allows the Superfund program to spend money on the system. The monthly cost of the monitoring/sampling is approximately \$55,000.

- To date, approximately nine (9) months of monitoring data has been collected which spans the entire summer and fall seasons and touches on winter and the spring.
- Our analysis of the radiological and VOC data from April to November 2014 found it to be consistent with normal outdoor background levels in the St. Louis metropolitan area.
- Our evaluation of the H2S, SO2 and CO data
- appear to be consistent with the monitoring technology deployed and project data quality objectives. The resultant data quality, however, is not suitable for direct comparison to risk-based standards such as the National Ambient Air Quality Standards (NAAQS) due to measurement uncertainty. (CHECK with MDNR)
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- MDNR has employed similar monitoring technology as EPA at their fixed monitoring stations mentioned above. MDNR has also, however, supplemented their fixed monitoring stations with twice-daily monitoring surveys using highly sensitive instruments for both H2S and Benzene. Additionally, MDNR monitors for odor during these surveys. These monitoring surveys consist of taking measurements at fixed points surrounding the perimeter of the Bridgeton / Westlake complex twice a day for comparison to health-based criteria. These monitoring surveys have consistently measured H2S concentrations substantially lower than the fixed monitoring stations because the fixed stations are sensitive to other sulfur containing compounds found in landfill gas. MDHSS review of the H2S monitoring data collected at the perimeter of the Bridgeton / Westlake complex to date has concluded that there have been no H2S concentrations sufficient to cause a public concern. (Check with MDNR)
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- Bullet about why Spanish village continued monitoring

Recommendations:

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- EPA modify its landfill air monitoring network to consist of one location, the existing station located in Spanish Village, and to monitor only for radiological parameters, the primary contaminants of concern at WLLS. Up until we have one years worth of data – then to be re-evaluated. (will need criteria for decision making)
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- EPA collaborate with MDNR to jointly explore the possibility of collection of more highly refined ambient air monitoring data. MDNR continue to operate its air monitoring system to address Bridgeton VOC and H2S emission concerns. Add in here whatever other suggestions came out of the meeting on 1/22 about working with MDNR to investigation certain type of compounds we found.
- PRP operates its air monitoring system

Commented [HS1]: To my knowledge, this has not been discussed with Superfund

Commented [HS2]: Until a years worth of data are collected only, to obtain full seasonal representation. There have been no radiological releases from the site justifying anything longer.

Commented [HS3]: I was not aware of a 1/22 meeting